## INAUGURAL ADDRESS,

DELIVERED BY

MR. JUSTICE BARRY, PRESIDENT OF THE INSTITUTE,

AT THE

OPENING CONVERZAZIONE, 22nd SEPT., 1854.

LADIES AND GENTLEMEN,-

The object for which we meet this evening is to inaugurate the Victorian Institute.

We assemble in the vestibule of the Temple of Science, many of us unacquainted one with the other, invited to engage in a course of mutual improvement, and to assist in the cause of general instruction.

The invitation is one which it does not become us to slight; it holds out not only the certainty of much agreeable mental recreation, but also the means, if duly employed, of attaining and diffusing many substantial benefits. It affords an opportunity to those who become members of collecting materials and interesting facts respecting the multitudinous subjects which form topics for the rational inquirer, and to which careful and well regulated observation will attach an accredited worth; of arranging and collating them so as to

facilitate investigation and attract the attention of those competent to exercise thereon an enlightened judgment; of provoking opinions or theories which may at least test the intrinsic merit of those heretofore current; and of recording, in authentic form, the discoveries or speculations of those who have hitherto individually in private prosecuted their unobtrusive studies, simply for the enjoyment yielded by the pursuit, and of those who may now be stimulated to join in giving their thoughts and views a public circulation.

The occasion appears to be propitious for the success of such an institution. This is not an era which will tolerate the division of acroatic\* and exoteric learning, or recognise barriers within which the unintiated are not permitted to encroach; men are no longer content that the search for knowledge should be delegated to the exclusive charge of any particular body, involved in the frivolous niceties of alchemical empiricism; clouding in allegory or shrouding in mystic symbols the steps by which they, as they supposed, approached the secret of the philosopher's stone, the elixir of life, or the universal solvent; -no longer amused with the acuminated subtleties of metaphysical disquisitions, dogmatic theology, or philological dissertations. Theories are not now dozed over for a lifetime, to pass away as idle dreams. We live in an age in which the difficulties which arrested the profoundest masters of antiquity and drew forth desponding lamentations of the impossibility of their solution. or ambiguous prophecies + of the probability of their removal.

<sup>\*</sup> Aristotle classified his Lectures as—1st, acroamatic, acroatic, or esoteric; 2nd, exoteric. The latter, delivered in public, comprised logic, rhetoric, and economics, &c. The former, to which his select disciples alone were admitted, related to the Deity, being nature, &c.

<sup>†</sup> Vide Bacon, especially "Nova Atlantis, Magnalia Naturæ." One of the least oracular and most poetical of these is that well-known passage from Dr. Darwin:—

Soon shall thy arm, unconquered Steam afar Drag the slow barge, or drive the rapid car; Or on wide waving wings expanded bear

have been subjugated by the ever-strengthening arm of Science: in which tangible realities and practical demonstration, from what order soever they may emanate, are accepted and appreciated; and in which each one who can add to the treasury, and enrich it with a new idea, or shed a ray of light upon any of the obscurities which deface the disk of learning, will be acknowledged as a benefactor and hailed as a good and faithful servant in the cause.

Moreover, this is an age of which the tendency is not, as formerly, to meet a novel proposition with a contemptuous denial, or its author with an accusation of atheism, intimacy with the Father of Evil, or the yet more heinous offence of heresy, and expose him to the hemlock,\* the dungeon, or the stake. The custom of denouncing and decrying innovations as such no longer reigns despotic. We are no longer oppressed by a bigotted veneration for "the wisdom of our ancestors." It is received with a deferential respect, and regarded in relation to the lights by which they were illuminated. New doctrines and inventions are submitted to dispassionate investigation before they are wholly condemned; if found to bear the tests applied, they are readily approved and adopted,—if not in the land in which they originate, in some more congenial spot, among some more liberal spirits; and are made fulcra on which a thousand anxious minds rest their levers to propel into a fuller growth the germ from which they have sprung. The dignified modesty of true

The flying chariot through the fields of air. Fair crews triumphant, bearing from above, Shall wave their fluttering kerchiefs as they move; Or warrior bands alarm the gaping crowd, And armies shrink beneath the shadowy cloud.

<sup>\*</sup> Humanity must mourn and the Muse of History must blush while the names of Socrates, Galileo, Faust, More, Servetus, &c., stand on record; and the persecutions of the Christians, by the fierce Nero, the cruel Domitian, the *virtuous* Trajan, the *just* Adrian, the *pious* Antonine, the ambitious Severus, and the indiscriminate fury of Maximin, Decius, Valerian, Diocletian, Maximinian, Galerius, &c.; and of each other by —— But let not the wounded bleed afresh.

learning is conscious that it is only by slow and painful steps that man has been able to evolve and eliminate those portions of knowledge with which he has been allowed to make himself acquainted; and while it will not suffer the self-sufficiency of ignorance to dictate that which reason must repel, it will not allow the arrogance of sciolism to assert that nothing has been left for the present generation to acquire.

Not only on such abstract grounds, but for reasons of a more particular nature is the occasion favourable.

One of the humblest races in the gradation of the human family has yielded to us the possession of the vast territory over which our people are now dispersed, and, by an inscrutable regulation of Providence, is waning before the access of civilization. By exertions unassisted from without, cities and towns have sprung up of a class and with a rapidity which challenge a parallel in former or contemporary history. The events crowded into the last three years have wrought a change, not merely in the actual condition, but in the immediate prospects of our community, which, as regards our social and political state and the opening dawn of accelerated progression, must inspire consolation, confidence, and hope. The discovery of gold, happily postponed until our hills, plains, and valleys were covered with flocks and herds, and until we had emerged from dependence upon, to that of sisterly amity with a province, has brought us into direct intercourse with nations hitherto indifferent to, perhaps ignorant of, the geographical position of this country; the keels of whose stately vessels now furrow every sea to visit us, who exchange with us commodities, productions of every clime, and pour forth their hardy sons to reinforce our numbers, bearing with them practised skill and restless avidity for the acquisition of wealth. The enterprise of our great parent state, but languidly expanding under pastoral occupations, has been caught up, and now directing itself into innumerable fresh channels, gives indication of highly vital force. Each new scientific application to

economise labour and time is brought within our reach, opening new avenues to honourably earned riches, and unattended by any of the inconveniences which in over-crowded communities occasionally arise from the substitution of machinery for manual labour before the classes affected thereby have resorted to other occupations; and we may be well assured that there are amongst us many gifted men of cultivated minds, fervid imagination, and intrepid temperament, who, curbed and confined elsewhere by the pressure of surrounding competition, have panted for a field in which their talents may be allowed to expatiate, and have gladly turned to this young country ready to receive them with a gracious welcome.

The construction, the features, the products, the deficiencies, the wants of this country demand and must exact scientific innovation to suit, adapt, repair, or supply it and them; and if within the recollection of some present a Fulton, unestimated in his native city, lived to see his baffled projects ripened in a foreign land, and the waters of the western hemisphere crowded with vessels incessantly propelled by the impulse of a slighted mechanism and a distrusted might, is it presumptuous to imagine that this genial southern sun may hasten into birth some unrevealed combination of forces, the rudiment of which as yet lies in the brain of one amongst us hitherto unsmiled on by the favour of his own compatriots, ungladdened by the approving voice of his own countrymen?

This is surely, then, a time when every effort to rivet attention on the culture of Art and Science should be heartily seconded. A strong desire for knowledge is manifested in the foundation of our University, the establishment of Libraries, and the formation of the numerous societies springing up in our towns, their suburbs, and the more distant districts. All this points to prove that the barren acquisition of money does not satisfy the cravings of a

people who possess a comprehension beyond that of the method of acquiring it, and that if such an appetite be once created, that people will demand something more than simple didactic information.

As to the benefits to be derived from the establishment of this institution, they are incalculable, and an attempted enumeration of them would be alike unnecessary and incomplete. What rather must they not be when an account of the natural and physical resources of the country is untouched by any hand we may strictly call our own?—when the different branches which treat of the mineral stores hidden within the earth, the vegetation which luxuriates, the insects, reptiles, animals which move upon its surface, the fish which swim in its waters, the fowls which float in its air, invoke especial systematic notice?—when the annals of atmospheric and climatic changes continue unnoted, and when a faithful narration of the few but eventful years of the occupation of this soil by Europeans is unwritten?

It must, however, strike you obviously as of no inconsiderable moment that an organized body should exist, round which those ardent in the pursuit of Science, and zealous in unfolding its enlarged adaptation to the peculiar wants of this country, should be able to group themselves; in which they could see the steadfast countenance of recognized authority; in the archives of which they could find the large stores which sagacity and unwearied diligence have laid up in hours saved from tedious indolence or snatched from profitless self-indulgence, to quicken intelligence and incite to that ambition which extorts praise; and where they may encounter that variety which will afford a chord on which each distinctive mind may strike its ample tone, lend a completeness to the full diapason, and thereby enliven and relieve the exact and monotonous uniformity.

One solid advantage to be reaped, were that the only one, is that by the practice of original investigation, the intellect

will become fertilized; and as by ploughing and harrowing the soil, new elements of vegetation and reproduction are brought to the surface, such exercises will imbue the mind with an elasticity and a capacity for analysis and induction, enlarged as occasion presents new objects with which it is called on to grapple.

This is by no means an unimportant consideration while the printing press is daily sending forth works written with the fascination of what is termed a popular style, introducing every species of scientific question, stripped of all severity of demonstration. When readers once acquire a habit of perusing such works hastily and without method, indiscriminately and without reflection or the necessity for mental exertion, they become prone to lean on the memory rather than to rely on the understanding, thereby underrating and necessarily impairing the higher powers of reason. Those who are satisfied with a medium so acceptable to the indolent may be displeased with what they may deem a depreciating allusion to such books. It is not my desire to undervalue, but to stamp a right value upon them. Many of them are of considerable merit, and the authors of them have distributed much useful instruction in quarters to which it had never before been able to penetrate; but in adverting to one of the chief aims of this Institute, "the elevation of the intellectual condition of the community," it is my wish to impress upon its members that this is not to be accomplished by adopting second-rate philosophy at second hand, but by enforcing the necessity for primary research; by creating a taste for independent and thoughtful observation; by gratifying the powers of perception while the attention is engaged and the curiosity gratified; by urging its members to strike out for themselves a track different from that which can only lead to mediocrity; by enlisting the active and strenuous, fostering in them a vigorous and self-relying habit, and thus, by strengthening the strong, arousing the listless and inattentive; and having kindled such a spirit, using every means to make it to permeate through every grade.

That such consequences may be looked for is probable when we consider that labour, whether physical or intellectual, is eminently social, and always most effective when combined; yet, that the achievements which human industry has made conspicuous have been won, not always by the combination of many hands, but by the co-operation of many minds, and the accumulated experience of many men.

In the elaboration of each separate idea a compensating mutual relation with some other cognate idea is found which brings a fresh agency to bear upon, assimilate, or clash with it; such attrition, different from that which wastes and diminishes physical bodies, serving to sharpen and refine the mind, correct, enlarge, or perfect the idea. A mutual dependency of powers, faculties, and functions is also an interesting feature in labour, through which arises the reflection of itself upon itself, and the reaction of the votaries upon each other.

The philosopher would be helpless without the assistance of the mechanic, who furnishes him wherewith to pierce through space beyond the range of human ken; to measure the heavens as with a meteyard; to trace the erratic course and predict the occultation and reappearance of the comet; to calculate with unerring certainty the effect of every perturbation arising from the constant, yet change-producing influence of gravitation; to weigh the invisible air, and to note the delicate organism of microscopic animalculæ.

The navigator, the engineer, the chemist are alike indebted to him; while on the other hand, the useful arts would stand still, the mechanic be no more than the primitive artificer, were it not for the successive substitutions or additions of forces, economical or supplementary, to construct which genius informs him; and his hand would be confined to the repetition of that labour which has no excitement of novelty, and is unrelieved by the prospect of improvement.

Thus Science claims Art as its handmaiden; Art reverences Science as her preceptor; each knit to the other with a benevolent sympathy.

In seeking to acquire an intimacy with the secrets of either, even in the seemingly motiveless or injudicious study of them, some collateral or accidental good may be expected, while from the neglect or unwise disregard of them nothing can proceed but regret. Although the great truth may lie beyond our reach, the honest and painstaking search for it may profit much; although the investigation may fail to reach the ultimate goal of his wishes, he may be entertained by many a pleasing diversion on the way.

Discoveries the most memorable have arisen accidentally and almost unbidden. The stain left on the lips of a dog, which had feasted on an insignificant shell fish, drew attention to that dye\* which tinctured the robes kings and conquerors were proud to wear. We are told that some Phœnician sailors having, for want of other fuel wherewith to cook their food on the sea-shore, had recourse to some blocks of alkali with which their vessel was laden, were astonished to behold it, when acted on by heat, dissolve into translucent streams, and assume with the sand the undesigned form of vitrification, giving the first hints for the manufacture of glass, now so indispensable an article of use, ornament, and luxury. The fatal efficacy of gunpowder as an agent for the destruction of human life surprised the cloistered BACON. The mirthful disporting of the children of an obscure spectacle-maker of Middleburg, who, by placing two pieces of glass one before the other, and looking through them, observed the weathercock on a neighbouring steeple to be magnified, drew the notice of the father to the fact; who, struck by the singularity of the effect, adjusted lenses on a

<sup>\*</sup> Purple.

Tyrioque ardebat murice lœnà,
Demissa ex humeris.

<sup>1.9.,</sup> of the Pious Æneas. - Virg. Æn. IV., 263.

board in brass rings, moveable at pleasure,—the first rude attempt at the telescope, the instrument which has so effectually aided to establish the renown of NEWTON, LA PLACE, and HERSCHEL. The spasmodic convulsion of the limbs of a dead frog, caused by the unpremeditated contact with two plates of metal, exposed to Galvani the premises on which, by a series of successful experiments, he built up the principles of Animal Electricity. While many of those by which Chemistry has administered so extensively to the convenience and efficiency of medicines, by removing nauseating or pernicious substances, or to ennobling the arts by disclosing previously unknown properties in vegetables, minerals, acids, or alkalies; in fixing or liberating colours; in ascertaining the composition and affinities of the different gases; have almost, as it were, obtruded themselves obliquely, —and the unappropriated ideas which the surge of everflowing time casts upon its bosom have thus allowed themselves to be drawn within the eddying verge of that circle which the inquirer has disturbed.

But to turn and view the subject in another light. There is no slender enjoyment afforded by the ready concession made by intellectual liberality to a demonstration, however startling, which stands in direct contradiction to traditional error, to the immature offspring of crude theories which we have too readily accepted from others, or to the cherished conclusions which we may have rashly drawn from ill-considered or assumed data; and the celerity with which after the evidence has been understood and assent granted to the new proposition, all pre-existing notions are displaced—and the tenacity with which the belief clings to the latter doctrine, by which the former has been supplanted, prove incontestibly the natural and indwelling love of truth which predominates over every other impression on the heart and mind.

Are there not, however, other attractions besides those emphasised by utilitarian argument capable of luring us to

such an enlightened species of amusement; to the devotion of a portion of that leisure left after the performance of our sterner duties, to prepare us for the perception of a more refined description of intellectual recreation than we have hitherto had within our reach?

It is too common to treat Science as ascetic and austere, and deny to her the ability of unbending to animate and to please. You recollect the enthusiastic apostrophe of the poet, who exclaims, with a greater generosity, to which I hope I hear an echo:—

"How charming is divine philosophy!

Not harsh and crabbed, as dull fools suppose,
But musical as is Apollo's lute,
And a perpetual feast of nectar'd sweets,
Where no crude surfeit reigns."

Who, then, is so impassive as not to feel delight in dwelling on the vast design of Nature, the order and beauty with which it is maintained, and yearn for an insight into its great arcana? Whether we survey the celestial scheme which prescribes to planets and their satellites stated revolutions, and upholds all, without dislocation of the marvellous mechanism, producing in the infinitely diversified movements of its members, by an all-wise counteraction of discordant discord, such surprising harmony; or whether we behold the terrific wonders of the atmosphere torn by devastating hurricanes, or agitated by conflicting currents, laden with pestilence, dealing death around; or its soothing airs breathing life and health. Whether we study the structure of the solid globe, and the alterations it constantly undergoes, by the agency of heat or magnetism, or those subtile powers which generate the volcanic shock, and work the perpetual transmutation of its compact ingredients; or the properties of elementary substances, their union and reciprocal action; or the structure, development, and admirable adaptation of the vegetable and animal kingdoms, ascending in unbroken

series to man; whether we look around and behold the curious felicity of his inventive genius, through which he has gained a mastery over the resisting elements, the stubborn earth, the treacherous ocean; and made the explosive steam, and the "thwart flame" of the "slant lightning" ministers obedient to his behests; or the perseverance of his unremitted toil, by which he has reared in every zone monuments of his piety, his ambition, his ostentation; or the fertility of his aspiring ingenuity, by which he has increased his sources of comfort, and encumbered the field of enjoyment with the prodigality of his luxury; or, finally, whether we cast our thoughts inward on ourselves, and consider the constitution and operations of the mind, the working of the passions, the sway of the affections, the faculties of the understanding, the dominion of the reason?

These afford themes which will for ever create fresh interest; for ever yield new gratification; for ever mock the efforts of the human race to exhaust them. From these as the elegant relaxations of our prudently husbanded vacation, we may harvest riches which neither birth nor fortune can confer, which neither poverty nor the vicissitudes of adversity can take away.

If it be necessary to adduce further reasons, besides those indicating the good results expected to follow on the establishment of this Institute, let me call your attention to what is going on elsewhere, without the boundaries of our immediate range of action; amongst other nations, with whom, in the charities of Art and the catholicity of Science, we may claim kindred. Every department of Philosophy is marching onward with gigantic steps, each stride elongated beyond the last. Every year teems with some new disclosure respecting the phenomena of nature, and the laws by which they are governed. While Humboldt, eminent for the remarkable diversity of his matured knowledge, is endeavouring to prepare his Cosmical sketch of Creation, he finds himself outstripped and forced to pause, that he may append

by supplemental annotation to each part as it issues forth, the results of that inductive reasoning, which, carried on by simultaneous yet independent study, has enabled a LE VERRIER and an Adams to herald the existence of new worlds, undetected by the inquisitive astronomer; and of the patient meditations of other men, who have spread out before him unimagined wonders. Methods of treating abstruse topics are simplified; improvements in the instruments to assist philosophical investigation, succeed each other to an extent which, while they excite a just admiration, hold out a belief that we are hovering on the threshold of more astounding discoveries than any which have hitherto awed us by their sublimity, or gratified us by the practical usefulness which has tended so extensively to the civilization of mankind.

And is it for us to lag behind, in the race in which the sages of our time show us such an example of diligence and activity? Is it to be said of us, the tenants of a portion of one of the grand divisions of the globe—a storehouse of unrevealed mysteries—the theatre, we may presume, of future great actions—that we have no ambition but to vegetate on its surface, mere "air plants whose roots are the lungs," (as Novalis quaintly terms men) without even contributing our quota of information respecting those things daily exposed to the observing eye, or endeavouring to awaken an appreciation of their concert, or aspiring to add a sign to the zodiac of science?

Are we to waste life in frivolity, or in occupations which, when we perish, will leave no memorial even of our own existence; and allow our era to be cited as that of the Cimmerian obscurity of the Southern Hemisphere? Are we to shrink from solving our portion of the great problem of truth; or is it apprehended that the grandeur of the theme should repel, that we should doubt our powers, distrust our endurance, and be fearful for our success?

Such timorous diffidence, such unworthy distrust, are un-

becoming, and ought not to be suffered to interpose the fluctuation of a wavering instant; and even were there grounds to apprehend a want of vigour to sustain this Institute, I would say:

Yet where an equal poise of hope and fear Does arbitrate the event, my nature is That I incline to hope, and not to fear.

It will not, I feel assured, have escaped the reflective amongst this audience, that of such pursuits as those on which we are about to engage ourselves, the chief end should be, not merely to extend our acquaintance with matters or things, their qualities or accidents; or to waste time, however sedulously employed, if our efforts merely entitle us to the barren praise of skilful compilers of dry and isolated facts, or unwearied classifiers of characteristic peculiarities or attributes, ingenious nomenclators, or editors who work on the volume of Nature as a Dictionary; but that our faith is to learn their relative value, in subordination to the comprehensive scheme of creation: and by exalting the understanding, waft it above the cheerless sophistry which chains the soul to an empty materialism, and warm the affections towards the great Author of Being. When we acknowledge that to be the needle which guides our speculations, we will be perpetually reminded of that infinite wisdom which governs and regulates the orb on which we dwell; but one amidst the countless myriads of worlds which Divine intelligence holds within their spheres; and, looking "from nature up to nature's God," muse with admiration and humility upon the system to which we owe so many blessings, and the succession of those indissoluble links which connect us with immortality.

We may then, in sincere approbation of the sentiments attributed to our first parents, in the simplicity of their uncorrupted state, join in these enthusiastic exclamations:—

These are Thy glorious works, Parent of Good; Almighty! Thine this universal frame, Thus wondrous fair: Thyself how wondrous then: Unspeakable! who sit'st above these heav'ns. To us invisible, or dimly seen In these thy lowest works: yet these declare Thy goodness, beyond thought and pow'r divine.

## II.

## A FEW OBSERVATIONS ON THE COUNTRY NEAR LAKE TORRENS.

READ BY MR. F. SINNETT.

26TH SEPTEMBER 1854.

EVERY one who knows anything of Australian geography, must have observed upon the map the strange horse-shoe shaped lake that is indistinctly shadowed forth; and that appears to form a sort of natural northern boundary to the neighbouring Colony of South Australia. The lake when I visited the district, was but little known, and is but little known now. The outer shore of the horse-shoe lake has been seen by but few persons, except at the extremities. But one party ever actually reached the water from the outside;—this was a small detachment from the exploring party commanded by Captain Sturt, the detachment being